

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date
11 November 2004 (11.11.2004)

PCT

(10) International Publication Number
WO 2004/097866 A1

(51) International Patent Classification⁷: **H01F 38/14, H02M 5/00, H01R 3/00, 13/66, H02M 7/00**

AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(21) International Application Number:
PCT/GB2004/001897

(22) International Filing Date: **4 May 2004 (04.05.2004)**

(25) Filing Language: **English**

(26) Publication Language: **English**

(30) Priority Data:
0310088.0 2 May 2003 (02.05.2003) GB

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(81) Designated States (unless otherwise indicated, for every kind of national protection available): **AE, AG, AL, AM,**

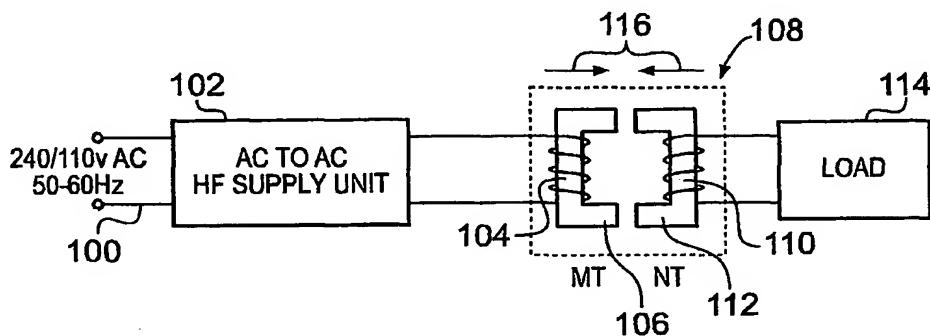
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- *with international search report*
- *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: APPARATUS FOR SUPPLYING ENERGY TO A LOAD AND A RELATED SYSTEM



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(57) Abstract: Apparatus for supplying energy to a load, comprises a power supply unit (102) e.g. a switched mode electronic transformer or electronic ballast having an input for receiving current at mains frequency and a means for stepping-up said mains frequency to a higher frequency e.g. 30-50 kHz and an output for delivering energy at the higher frequency. A two part connector (108) has a first core portion (106) that has a primary winding (104) connected to the output of the power supply unit and a mating second core portion (112) that has a secondary winding (110) for delivery of energy to a load (114), the core portions being of a high resistivity material, e.g. a ferrite having a resistivity of at least $10^4 \Omega \text{ cm}$. The apparatus may be used to power e.g. low voltage halogen or other incandescent lighting, fluorescent lighting, or an electric motor, a power supply for a computer, radio, television or like electronic device, a heater or the like.